SCOPING COMMENTS AND RESPONSES

FEASIBILILTY STUDY/ENVIRONMENTAL IMPACT STATEMENT
FLOOD DAMAGE REDUCTION
IN THE KANSAS CITYS, MISSOURI AND KANSAS METROPOLITAN AREA
January 30, 2004

1. Hike/bike trails on levees and increased riverfront access

Because there were a number of comments regarding trails on levees, all the comments have been listed below followed by a general response to this issue.

Comments:

1.1 Comment: I want everybody to know there is a high level of interest in Clay County to incorporate trails in the County and one of the areas we recognize in the Northland Trails Plan, and I have copies of that here, were the levees along the Missouri River. … We think that possibly the levee may be another source of land where we do not need to go to numerous owners for acquisition. … I am here tonight representing the Commission to see if there is a level of interest and if there is with the Clay County Levee Districts we would like to pursue this and if there isn't just tell us and we will look someplace else. … We think it might help increase security around the levee, it might help increase public support for the levees, increase political support for the levees and also help improve the quality of life for Clay County Citizens. So if you are interested in taking any of this information I will be glad to leave it for you and I would also be glad to discuss this with you after the meeting. Craig Porter, Clay County Commissioner, Clay County Missouri, verbal at August 20, 2003 Public Scoping Meeting

1.2 Comment: I think that primarily I need to address the Riverfront Heritage Trail and its relationship to the CID (Central Industrial District) and more specifically the Kaw Valley Drainage District. I brought with me several copies of the maps of the Riverfront Heritage Trail. I don't know if any of you are familiar or at this point unfamiliar with the Heritage Trail but it's a multiuse trail that will unify the riverfront with the city market area and eventually extend as far south as the Kemper Arena Area. There are some segments of the trail as outlined in this map that of course run along the levees of the Kaw Valley Drainage District … The perception is that the riverfront has been sequestered and it is no longer really accessible to the public. I personally feel and I believe I can speak with a certain amount of confidence for the Missouri Bicycle Federation that allowing the public to buy-in to those districts, to allow the public to buy-in to those areas in the form of recreation puts the public commitment back into the preservation of those areas. … I submit and simply put that the best way to ensure the success of flood districts in the future is to make sure that the public buys-in and that can be most efficiently done with recreation. … I have some copies of the Riverfront Heritage Trail map if you would like them and I thank you for your time. Randy Niere, Unofficial representative of the Missouri Bicycle Federation and the Riverfront Heritage Trail organization, verbal at August 20, 2003 Public Scoping Meeting.

1.3 Comment: We are here to express our support for the concept of recreation on top of the levees and we offer to provide technical assistance or be a resource of information to the Corps, local agencies or levee districts for that purpose. We have a great interest in connecting the public back to our region's important resource which is the river. Steve Rhoades, MidAmerica Regional Council, verbal at August 20, 2003 Public Scoping Meeting

1.4 Comment: I think the levee systems should be open to non-motorized use and trail development. The levees have cut the people off from the rivers. Opening them will help restore that use. I know levees elsewhere are

used for public roads (Mo Bootheel – Memphis Corps District). Bikes and walkers are much less damaging (if they cause any damage) then that. People out there also help watch for and report problems. The levees will make vital links for proposed trail systems, help with bicycle transportation corridors and help get a healthier population by getting exercise. There will also be an effect on tourism dollars. The people need to be reconnected to the river. The use at English Landing Park – one of the few places you can actually get to the river – is an indication of this need. Helene Miller, Liberty Missouri, comment card August 20, 2003 Public Scoping Meeting.

1.5 Comment: A trail system built on the levees and riverfront ways of this system would be a gem of considerable economic and cultural benefit to the Kansas City region. This economic benefit should be considered as an integral part of the project and the economic value of the trails/greenway system should be included in the economic analysis created for the project. Public access to the levee system and the creation of walking/bike trails throughout the system should be an important part of this project. Brent Hugh, Email comment received August 21, 2003.

1.6 Comment: I would like to endorse the idea of using the levy system for trails in the Kansas City area. The Kansas City area has fewer trails than most cities in the USA, and the use of levees could be a big boost to our trail system. Steve Fuller, Email comment received August 29, 2003.

1.7 Comment: Recreational trails on levees. The Mid-America Regional Council (MARC), in association with local governments and civic partners throughout the region, developed a metrowide greenways trails plan for the Kansas City region called MetroGreen. This plan calls for the development of over 1,100 miles of trails throughout the region in the coming generation. Key elements of this plan call for the creation of 240 miles of recreational trail atop the levee systems along the Kansas and Missouri Rivers. MARC encourages the Corps to include consideration of public access of levees and use maintenance roads as trails. We would request your agency be supportive of considering this concept when discussing it with local levee districts in our region. Tom Jacobs, Manager Environmental Programs, MidAmerica Regional Council by letter September 17, 2003.

Response: Several comments were received in relation to the development of recreational hike/bike trails on the existing levee system. These comments ranged from stating that the Corps should encourage or facilitate the development of a recreational hike/bike trail system on the existing levees, to the Corps should itself fund trails on the existing levee system or even require that levee districts construct or allow trails on the existing levee system. In support of trails on the existing levee system several commenters provided examples where hike/bike trails were located on Federal levees. Some commenters noted that locating hike/bike trails on the levees would emphasize Kansas City's tie with the two river systems that have played such a major role in the development of our community. They have also noted that the recreational trail system could actually increase support for, and awareness of, the benefits provided by the existing levee system. Commenters also noted the aesthetic benefits associated with the river and adjacent riparian timber. The following provides further information and clarification on how recreational hike/bike trails will be considered during this study:

1. The Corps is neither a proponent of, nor an opponent to, the incorporation of a recreational trail system into any given levee unit. In addition, the Corps has no authority to require that levee districts construct or allow recreational hike/bike trails on the existing levee system. In Kansas City District, the local sponsors own and operate the Federal levees that the Corps of Engineers constructed. The local sponsors (in some cases drainage districts, in some cases municipalities) pay for the maintenance of those systems. In other parts of the nation, this is not always the case. So, the circumstances of other Federal levee systems are not necessarily analogous to the circumstances in the Kansas City District.

2. The Corps of Engineers does not own the levee units but monitors for compliance the operation and maintenance of the levee system in cooperation with the local levee districts. This oversight is primarily to ensure that the existing levee system will perform as designed during a flood event. The Corps makes annual

inspections of each levee unit and reviews plans submitted by the levee districts for work on or adjacent to the levees. The standards used as basis for this oversight and inspections are contained in the following referenced citations: TITLE 33- NAVIGATION AND NAVIGABLE WATERS, Chapter II – Corps of Engineers, Department of the Army, Part 208 – Flood Control Regulations, MAINTENANCE AND OPERATION OF FLOOD CONTROL WORKS. In summary, Part 208 emphasizes efficient operation and maintenance of levees, floodwalls, drainage structures, gates, valves, floodways, channels, pumping plants, and other flood control facilities. Failure of a levee district to maintain the levee unit in a manner consistent with the operation and maintenance manual or allow modification on or adjacent to the levee without the required engineering review and approval from the Corps could result in that levee unit not being eligible for Federal funds for repairs should it be damaged during a major flood.

3. Currently, within the Kansas City District there are recreational hike/bike trails at the Federal levee units at both Lawrence and Manhattan, Kansas. These trails provide numerous recreational opportunities and both receive fairly high usage and are popular in their communities. However, the levee systems in the Kansas City metropolitan area are in many cases immediately adjacent to intense industrial development, utilities, and transportation infrastructure. In view of heightened security concerns of recent times, there are industrial complexes, key utilities, and transportation lines adjacent to the levee systems that would be sensitive to increased public access. Concerns have been raised by the levee districts regarding the following: liability issues, litter/dumping, trespassing on adjacent landowners, security of businesses, damage or vandalism to levee structures, erosion of the levee embankment, sources of funding for operation and maintenance of the trail, and also conflicts between recreational users and relatively frequent operation and maintenance work on the levees. Also, there is a concern raised by the levee districts that the primary purpose of the levee system would be subordinated by adding another purpose. The Kansas Citys levee system provided significant protection to the economic investment in our community during the Great Flood of 1993. The Kansas City levee system has saved lives, prevented hundreds of millions of dollars in physical damages, and maintained economic and employment opportunities for a large vital portion of the metropolitan area. The levee owners and the constituents they serve remain adamant that the primary reason for the existence of this critical infrastructure must remain a central focus.

4. Funding for the development and long-term viability of a recreational hike/bike trail on a levee unit is a critical consideration. Local trail proponents may decide to fund all such costs locally. Or the possibility of Federal funding can be considered. In a study authorized under Section 216 (this study) a dollar amount up to 10% of the total project cost can be utilized for recreational development. This would include, study, design and construction costs. The costs of this recreational development are shared with the local sponsor on a 50% local and 50% Federal basis. There is currently no authority for the Corps to fund recreational trails on this levee system at 100% Federal costs.

In the current ongoing study, no specific funding for the study of recreational development was identified by the study sponsors. Thus the study budget does not address levee trail implementation directly. Furthermore, the long-term operation and maintenance cost of recreational development are fully the responsibility of the levee district (or the local sponsor for that recreational feature). It is our understanding that funding arrangements for the operation and maintenance costs associated with the implementation of a levee trail system have not been clearly identified by trail proponents in consultation with all the levee districts involved with this study. The development of a bona-fide local financing plan (addressing study, design, construction, operation and maintenance) is a necessary prerequisite for Federal involvement in any proposed trail action.

5. The first step in realistically addressing the development of a recreational hike/bike trail on a levee unit would be for the trail proponent to meet with the officials of the local levee district and discuss in some detail the operation and maintenance requirements of the levee unit. To be successful, this discussion must lead to agreement on the financial responsibility for the operation and maintenance costs associated with trail

implementation. Such discussions should recognize the range and numbers of flood control facilities and access requirements for the specific levee unit. .

Following the initial meetings and subsequent agreements between trail proponents and the levee districts, the individual levee districts must then formally submit to the Corps:

A. A request for technical review of any locally-developed trail plan. The Corps technical oversight review would identify any components of the proposed plan that would not be compatible with operation or maintenance of the levee system in accordance with its primary function to provide protection during major floods, or

B. If the trail implementation plan were to propose Corps funding or Corps involvement in the study, design, or construction of the trails, then the aforementioned local financial responsibility plan must be provided to the Corps for review. The Corps would then determine if the proposed trail implementation could be considered within the authority of the ongoing feasibility study.

6. As part of this Kansas Cities Levees Study, the Corps will consider requests from the levee districts along with any local plans, such as Metrogreen, to ensure that if practicable, any alternative selected to increase the reliability of the existing flood damage reduction system, does not preclude future development of recreation opportunities. The Corps of Engineers is supportive of beneficial and compatible recreation development in the Metropolitan area, including trail systems that interconnect the region. The Corps will continue to work with recreation interests and the levee districts to facilitate better mutual understanding and cooperation where possible.

2. Hydrologic and engineering

2.1 Comment: Will increased flood protection measures within the study area result in increased floodwater elevations immediately downstream of the study area? If so, how are those impacts handled? Jim Shipley, Project Manager MoDOT, comment card August 7, 2003 Scoping Meeting

Response: Hydraulic impacts (effects) upstream, downstream, and through the project reach for the selected alternative will be included in the final report. At this time, effects have not been quantified.

2.2 Comment: The impression I got was that the Kaw was doubtful in any event in the 1951 order of flow. First, what was the estimated peak flow from the Kaw from the flood of 1951 vs what the river is estimated to be able to bear currently? Randy Niere, Email comment received August 22, 2003

Response: The estimated peak discharge on the Kansas River during the 1951 event is 510,000 cubic feet per second (cfs) coincident with 63,000 cfs on the Missouri River above the Kansas River. Therefore, the total flow immediately downstream of the confluence at the Hannibal Bridge was estimated at 573,000 cfs. The capacity of the Kansas River in the study reach is dependent on the assumed discharge on the Missouri River. Results of this analysis will be included in the final report.

2.3 Comment: How likely is the secondary berming, wells and pumping to actually prevent sand boils or physical denigration or migration of the levee itself? Randy Niere, Email comment received August 22, 2003

Response: Under seepage berms on the landside of the levee add weight at the toe to prevent soil particles from piping under the levee from sand-boil activity acting at the landside that could result in failure of the levee. Wells work as pumping, to draw down the excess pressure head. They reduce the pressure head down landward of the toe so risk of failure due to uplift or piping is minimized

2.4 Comment: Has the subsidence effect of scouring and undermining of the sand layer at points like Turkey creek been estimated in this model? Randy Niere, Email comment received August 22, 2003

Response: No.

2.5 Comment: Do the numbers for the Kaw change if the Missouri is concomitantly high, near flood stage? Randy Niere, Email comment received August 22, 2003

Response: See response to comment 2.2 above.

2.6 Comment: At what depth is the sand layer? The bedrock layer at the riverbank? I have physically been down in the banks around James St., and it is a fine sand down there. Is this contiguous with the sand layer in the geodynamics slide? Randy Niere, Email comment received August 22, 2003

Response: This will depend on the slide area you are referring to.

2.7 Comment: Are there any similar models for this kind of flood prevention situation in another urban environment? Randy Niere, Email comment received August 22, 2003.

Response: The Corps of Engineers Hydrologic Engineering Center has developed a state-of-the-art analysis model for formulating and evaluating flood damage reduction plans for both urban and rural areas. The current model is the Hydrologic Engineering Center Flood Damage Analysis (HEC-FDA) computer program model that uses a risk-based analysis. The model includes both economic flood damage and hydrologic engineering analyses using a consistent study configuration for streams, damage reaches, plans, and analysis years.

3. Channelization and environmental impact issues

3.1 Comment: Information provided at the August 7, 2003 meeting indicates a new alternative (not previously addressed in 1999) will be explored for possible implementation. The new alternative will explore increasing the channel capacity of the lower Kansa River which will entail channel and bank line modifications…. Channelization of the lower Kansas River would have significant adverse impacts on fish and wildlife resources. Channelization will result in a quantitative reduction in aquatic habitat, decrease aquatic habitat diversity, and increase sediment loading in the area channelized. Major impacts will occur from loss of substrate, removal of snags, detritis, loss of instream vegetation, loss of streamside vegetation, disruption of the run-pool sequence, and potential dewatering of adjacent areas. It is also expected that these adverse impacts will affect downstream Missouri River areas. … Overall, this alternative would significantly damage fish and wildlife resources and their habitat. … The adverse affects to fish and wildlife and recreation from implementation of this alternative should be avoided by discarding it from further evaluation. Increasing the height of existing levees along the lower Kansas River will eliminate the need for removing large amounts of vegetation from stream banks and avoid the expense of maintenance required on channels dredged through noncohesive (sand substrate) materials. William H. Gill Field Supervisor U.S. Fish and Wildlife Service, Kansas Field Office by letter September 11, 2003.

Response: In preparation for the scoping process, removal of riparian vegetation was identified by the Corps as one potential measure that could potentially increase the discharge capacity on the lower part of the Kansas River. Historic photographs taken during the 1950s show a Kansas River channel with little or no riparian vegetation. While this condition would not be considered optimal for fish and wildlife resources, this condition did provide optimal conveyance of floodwaters by maintaining a maximum cross sectional area for flood flows. Since the 1950s a woody riparian corridor has developed and as out of bank flows occurred additional material was deposited on the high bank further reducing the cross sectional area and conveyance capacity of the Kansas River channel. The Corps fully acknowledges the FWS position that the wholesale clearing of all riparian

vegetation on the lower Kansas River would have adverse effects on fish and wildlife resources, water quality and recreational use of the river, but does not want to remove from consideration this early in the scoping process what, if any, mutually compatible conveyance and environmental benefits could be realized by converting and maintaining a portion of the woody riparian corridor to shallow water habitat.

3.2 Comment: Restoring some vegetation (trees probably) along the river will not only hide the ugly channels in the metro area but also provide some wildlife habitat. The river is a great place for canoeing, fishing, etc. Helene Miller, Liberty Missouri, comment card August 20, 2003 Public Scoping Meeting.

Response: The Corps' Environmental Operating Principles presented on March 26, 2002 and other regulations provide guidance to the Corps to actively seek design solutions for flood damage reduction projects that will also achieve environmental sustainability. Alternatives developed for this project will evaluate the potential for environmental enhancement and ecosystem restoration where opportunities exist.

3.3 Comment: Environmental Sustainability & Corps Environmental Operating Principles. As you know, in March 2002, Lt. General Robert Flowers announced the U.S. Army Corps Engineers Environmental Operating Principles to guide the Corps in all of its work. These principles articulate strong support for designing and constructing environmentally sustainable projects. Use of these principles to define the scope of this project might have several interesting implications. The broadest, however, would suggest that the project scope itself seek opportunities to enhance and restore environmental conditions wherever possible, rather than restricting the scope to mitigating negative impacts. Tom Jacobs, Manager Environmental Programs, MidAmerica Regional Council by letter September 17, 2003.

Response: As alternatives are developed thru the EIS process for the seven levee project area, the study team will analyze potential opportunities for ecosystem restoration and recreation development options that can be combined with the primary purpose of flood damage reduction. These opportunities will need to be evaluated in terms of the study authority, the availability of funding, and based upon the approval of the levee district sponsors.

3.4 Comment: Restoration sites and regional planning. MARC, in association with a broad range of federal, state and local partners (including the Corps) is working to develop a regional natural resources inventory. This GIS-based initiative will seek to identify critical natural areas, natural resource conservation needs and environmental restoration opportunities. Opportunities to restore environmental conditions on some of these sites identified through this initiative should be seriously evaluated as project alternatives are developed. Tom Jacobs, Manager Environmental Programs, MidAmerica Regional Council by letter September 17,2003.

Response: The team will use the regional natural resources inventory to identify environmental restoration opportunities in the study area. As flood reduction alternatives are developed for the study area the opportunities for wetland and ecosystem restoration will be evaluated in more detail for specific sites. The Corps has extensive experience in designing and implementing ecosystem restoration projects along the Missouri and Kansas River systems and can bring this knowledge to the Kansas Citys Seven Levee Flood Damage Reduction Project.

4. Cultural and historic issues

4.1 Comment: At this time, we have no particular areas of concern although a number of historic trail routes and farmstead locations are recorded within these areas on historical maps. Although we have not identified any known archeological sites or historic structures within the areas identified, we would like the opportunity to review any future construction projects propose as a result of the study. Mary R. Allman, Kansas State Historical Society by letter August 18, 2003.

Response: Comment noted. The Kansas State Historical Society will be consulted regarding any cultural resources that may be impacted by alternatives developed for this project.

4.2 Comment: We would like to be up dated on all issues pertaining to the Kansas City levees for historical, cultural, and environmental issues. Sherri Clemons, NAGPRA Wyandotte-Nation, Email comment received August 14, 2003

Response: Comment noted.

5. Other comments

5.1 Comment: You should seriously consider buying development rights on ag lands upstream (and perhaps downstream) where the floodwaters will be allowed to go and spread out. It makes no sense to continually narrow the river channel pushing water levels higher, to allow levee development in floodplains. Buy the land or at least the development rights in places. Some could be used for wetland creation. The rest could be farmed. Helene Miller, Liberty Missouri, comment card August 20, 2003 Public Scoping Meeting.

Response: Comment noted. A program similar to what you have suggested is currently being implemented by the Corps of Engineers through the Missouri River Fish and Wildlife Mitigation Project. This project has authorized the purchase of 166,750 acres from willing sellers in the Missouri River floodplain from Sioux City, Iowa to the mouth of the river at St Louis, Missouri. The primary purpose of this project is to mitigate the habitat lost as a result of bank stabilization and navigation projects implemented over several decades in the floodplain area. Additional information can be obtained by calling the Corps of Engineers at (816) 983-3324 or on the project website: http://www.nwk.usace.army.mil/projects/mitigation/.

5.2 Comment: Please advise FEMA to attend Agency Scoping Meetings. Region VII contact: Phil Kirk, phil.kirk@dhs.gov (816-283-7076) Roger Benson, FEMA R-VII Kansas City, Missouri, comment card August 20, 2003 Scoping Meeting.

Response: Mr. Kirk will be added to our agency contact list.

5.3 Comment: How would the development/redevelopments at KCMO Riverfront impact your evaluation of potential improvements to the levee systems adjacent to the Missouri River. Gabriel Okafor, Division Manager, Economic Development and Business Assistance Kansas City, Missouri, comment card August 7, 2003 Scoping Meeting.

Response: Development and redevelopment of the KCMO Riverfront will be evaluated in the economic impact analysis section. The economic analysis will note any increase in the level of real estate and other assets in the study area resulting from recent and proposed economic development plans.

5.4 Comment: Will reports include any impact on maritime commerce? Update your agency list: Change US Coast Guard Second District to US Coast Guard Marine Safety Office St. Louis. LTJG Tom Morgan, Planning Division Chief, US Coast Guard Marine Safety Office, St. Louis, Missouri, comment card August 7, 2003 Scoping Meeting.

Response: The Transportation Section in the Draft EIS will address the potential impacts of alternatives being analyzed on Maritime and other transportation resources in the study area.

5.5: Comment: Good information on general direction that the Corp is taking toward this task. Abe Shirazi, Parks and Recreation Department, Kansas City, Missouri, comment card August 7, 2003 Scoping Meeting.

Response: Comment noted.

5.6 Comment: Keep MoDOT informed related to proposed work adjacent to all Mo. River Bridges and highways, (indicated work near Rte. 169). Keep Kansas City District of MoDOT notified. Michael Stelzleni, Technical Support Engineer, MoDOT, comment card August 7, 2003 Scoping Meeting.

Response: Comment noted. The Kansas City District of MoDOT will be included on the mailing list and kept informed through the NEPA process with the preparation of a Draft EIS and public meetings. If specific transportation related issues are identified as related to flood protection alternatives, MoDOT will be contacted to review transportation issues and impacts.

5.7 Comment: Clay County's concerns center around (1) Bridge safety, Broadway to 291, (2) Natural habitat, (3) Recreational opportunities, and (4) Navigation of Missouri River. Not interested in commercial (business) development along the river as it's all in the floodplain. Would like to help NKC and Birmingham Levee Districts with discussions of solutions, ideas. Carole Bloom, Planning and Zoning Director, Clay County, Missouri, comment card August 7, 2003 Scoping Meeting

Response: The impacts of any proposed alternatives developed for this project will be analyzed for bridge safety, natural resource, recreational opportunities and navigation in the Draft EIS. The Corps is open to discuss with government officials and community stakeholders any alternatives or solutions that they want to propose for the flood reduction project.

5.8 Comment: I believe that the river needs to be accessible and enjoyed for people to support adequate flood protection. I suspect adequate will prove to be extensive and costly, based on reducing the threat of failure in the underlying geologic structure of the Kaw and Missouri river valleys in the metro area. But it needs to be done, obviously, even if that means pouring footings or jacking pilings for the levee all the way down to bedrock. This is about human and economic security for the metro region, after all. Randy Niere, Email comment received August 22, 2003

Response: Comment noted.